

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

At paragraph [0014]:

[0014] ~~The invention according to claim 1~~ One aspect of the invention is intended for a power converter for stepping down and converting AC voltage (S) to DC voltage. ~~It comprises~~ The power converter includes first and second input connections (T1, T2) for inputting output of the AC voltage; a first capacitor (C1) and a second capacitor (C2) interposed in series on a first electric connection line (L1) between the first input connection (T1) and the second input connection (T2), in order from a side of the first input connection; a first diode (D1) interposed between the first capacitor and the second capacitor on the first electric connection line so that its forward direction is toward the second input connection; a second diode (D2) interposed on a second electric connection line (L2) so that its reverse direction is toward the second input connection, the second electric connection line connecting a point between the first capacitor and the first diode on the first electric connection line, and the second input connection; a first output connection (T3) for output of the DC voltage, which is connected between the first diode and the second capacitor on the first electric connection line; and a second output connection (T4) for output of the DC voltage, which is connected to the second input connection.

[0014] One aspect of the invention is intended for a power converter for stepping down and converting AC voltage (S) to DC voltage. The power converter includes first and second input connections (T1, T2) for inputting output of the AC voltage; a first capacitor (C1) and a second capacitor (C2) interposed in series on a first electric connection line (L1) between the first input connection (T1) and the second input connection (T2), in order from a side of the first input connection; a first diode (D1) interposed between the first capacitor and the second capacitor on the first electric connection line so that its forward direction is toward the second input connection; a second diode (D2) interposed on a second electric connection line (L2) so that its reverse direction is toward the second input connection, the second electric connection line connecting a point between the first capacitor and the first diode on the first electric connection line, and the second input connection; a first output connection (T3) for output of the

DC voltage, which is connected between the first diode and the second capacitor on the first electric connection line; and a second output connection (T4) for output of the DC voltage, which is connected to the second input connection.

At paragraph [0015]:

[0015] ~~According to the invention of claim 2~~According to another aspect of the invention, the power converter ~~recited in claim 1~~ further ~~comprises~~includes a Zener diode (ZD) interposed between the first output connection (T3) and the second output connection (T4) so that its forward direction is toward the first output connection.

[0015] According to another aspect of the invention, the power converter further includes a Zener diode (ZD) interposed between the first output connection (T3) and the second output connection (T4) so that its forward direction is toward the first output connection.

At paragraph [0016]:

[0016] ~~According to the invention of claim 3~~According to another aspect of the invention, the power converter ~~recited in claim 2~~ further ~~comprises~~includes a resistor (R) interposed on the first electric connection line (L1) on a side closer to the first input connection than a position of connection with the second electric connection line (L2).

[0016] According to another aspect of the invention, the power converter further includes a resistor (R) interposed on the first electric connection line (L1) on a side closer to the first input connection than a position of connection with the second electric connection line (L2).

At paragraph [0017]:

[0017] ~~According to the invention of claim 4~~According to another aspect of the invention, in the power converter ~~recited in claim 3~~, the resistor is a thermistor.

[0017] According to another aspect of the invention, in the power converter, the resistor is a thermistor.

At paragraph [0018]:

[0018] ~~According to the invention of claim 5~~According to further aspect of the invention, the power converter ~~recited in claim 3~~ further ~~comprises~~includes a third capacitor (C3) connected between one end of the resistor (R) and the second input connection (T2).

[0018] According to further aspect of the invention, the power converter further includes a third capacitor (C3) connected between one end of the resistor (R) and the second input connection (T2).

At paragraph [0019]:

[0019] ~~According to the invention of claim 6~~According to further aspect of the invention, in the power converter ~~recited in claim 5~~, the one end of the resistor (R) is the end on the side of the second input connection (T2).

[0019] According to further aspect of the invention, in the power converter, the one end of the resistor (R) is the end on the side of the second input connection (T2).

At paragraph [0020]:

[0020] ~~According to the invention of claim 7~~According to another aspect of the invention, in the power converter ~~recited in claim 5~~, the one end of the resistor (R) is the end on the side of the first input connection (T1).

[0020] According to another aspect of the invention, in the power converter, the one end of the resistor (R) is the end on the side of the first input connection (T1).

At paragraph [0021]:

[0021] ~~According to the invention of claim 8~~According to yet another aspect of the invention, in the power converter ~~recited in claim 5~~, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

[0021] According to yet another aspect of the invention, in the power converter, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0022]:

[0022] ~~According to the invention of claim 9~~According to further aspect of the invention, in the power converter ~~recited in claim 6~~, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

0022] According to further aspect of the invention, in the power converter, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0023]:

[0023] ~~According to the invention of claim 10~~According to another feature of the invention, in the power converter ~~recited in claim 7~~, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

[0023] According to another feature of the invention, in the power converter, a capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0024]:

[0024] ~~According to the invention of claim 11~~According to one feature of the invention, the power converter ~~recited in claim 1~~ further ~~comprises~~includes a resistor (R) interposed on the first electric connection line (L1) on a side closer to the first input connection than a position of connection with the second electric connection line (L2).

[0024] According to one feature of the invention, the power converter further includes a resistor (R) interposed on the first electric connection line (L1) on a side closer to the first input connection than a position of connection with the second electric connection line (L2).

At paragraph [0025]:

[0025] ~~According to the invention of claim 12~~According to another aspect of the invention, in the power converter ~~recited in claim 11~~, the resistor is a thermistor.

[0025] According to another aspect of the invention, in the power converter, the resistor is a thermistor.

At paragraph [0026]:

[0026] ~~According to the invention of claim 13~~According to yet another feature of the invention, the power converter ~~recited in claim 11~~ further ~~comprises~~includes a third capacitor (C3) connected between one end of the resistor (R) and the second input connection (T2).

[0026] According to yet another feature of the invention, the power converter further includes a third capacitor (C3) connected between one end of the resistor (R) and the second input connection (T2).

At paragraph [0027]:

[0027] ~~According to the invention of claim 14~~According to one feature of the invention, in the power converter ~~recited in claim 13~~, the one end of the resistor (R) is the end on the side of the second input connection (T2).

[0027] According to one feature of the invention, in the power converter, the one end of the resistor (R) is the end on the side of the second input connection (T2).

At paragraph [0028]:

[0028] ~~According to the invention of claim 15~~According to another aspect of the invention, in the power converter ~~recited in claim 13~~, the one end of the resistor (R) is the end on the side of the first input connection (T1).

[0028] According to another aspect of the invention, in the power converter, the one end of the resistor (R) is the end on the side of the first input connection (T1).

At paragraph [0029]:

[0029] ~~According to the invention of claim 16~~According to one aspect of the invention,
in the power converter ~~recited in claim 13~~, a capacity ratio of the first capacitor to the third
capacitor is set to about 1:1.

[0029] According to one aspect of the invention, in the power converter, a capacity ratio
of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0030]:

[0030] ~~According to the invention of claim 17~~According to yet another feature of the
invention, in the power converter ~~recited in claim 14~~, a capacity ratio of the first capacitor to the
third capacitor is set to about 1:1.

[0030] According to yet another feature of the invention, in the power converter, a
capacity ratio of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0031]:

[0031] ~~According to the invention of claim 18~~According to one aspect of the invention,
in the power converter ~~recited in claim 15~~, a capacity ratio of the first capacitor to the third
capacitor is set to about 1:1.

[0031] According to one aspect of the invention, in the power converter, a capacity ratio
of the first capacitor to the third capacitor is set to about 1:1.

At paragraph [0032]:

[0032] ~~According to the invention of claim 19~~According to another feature of the invention, in the power converter ~~recited in any one of claims 1 to 18~~, a capacity ratio of the first capacitor to the second capacitor is set to 1:1000.

[0032] According to another feature of the invention, in the power converter, a capacity ratio of the first capacitor to the second capacitor is set to 1:1000.

At paragraph [0033]:

[0033] ~~According to the invention of claim 1~~According to further aspect of the invention, AC voltage supplied through the first and second input connections is divided (stepped down) by the first and second capacitors, rectified to DC voltage by the first diode, smoothed by the second capacitor, and supplied to the load side through the first and second output connections.

[0033] According to further aspect of the invention, AC voltage supplied through the first and second input connections is divided (stepped down) by the first and second capacitors, rectified to DC voltage by the first diode, smoothed by the second capacitor, and supplied to the load side through the first and second output connections.

At paragraph [0036]:

[0036] ~~According to the invention of claim 2~~According to one aspect of the invention, the Zener diode enables the output of a stable DC voltage.

[0036] According to one aspect of the invention, the Zener diode enables the output of a stable DC voltage.

At paragraph [0037]:

[0037] ~~According to the inventions of claims 3, 4, 11, and 12~~ According to further aspect of the invention, a resistor such as a thermistor allows effective control of rush current flowing on the first and second electric connection lines.

[0037] According to further aspect of the invention, a resistor such as a thermistor allows effective control of rush current flowing on the first and second electric connection lines.

At paragraph [0038]:

[0038] ~~According to the inventions of claims 5 and 13~~ According to yet another aspect of the invention, it is possible to control overcurrent on the first electric connection line, which is caused by ripples of the AC voltage. Especially in the case where the Zener diode is adopted, the thermal load of the Zener diode can be reduced.

[0038] According to yet another aspect of the invention, it is possible to control overcurrent on the first electric connection line, which is caused by ripples of the AC voltage. Especially in the case where the Zener diode is adopted, the thermal load of the Zener diode can be reduced.

At paragraph [0039]:

[0039] ~~According to the inventions of claims 6 and 14~~ According to an aspect of the invention, the time constant of a CR series circuit formed of the first capacitor and the resistor allows effective control of the influence of ripples of the AC voltage.

[0039] According to an aspect of the invention, the time constant of a CR series circuit formed of the first capacitor and the resistor allows effective control of the influence of ripples of the AC voltage.

At paragraph [0040]:

[0040] ~~According to the inventions of claims 7 and 15~~ According to further aspect of the invention, it is not necessary to increase the rating of the resistor even if the frequency of ripples of the AC voltage is high.

[0040] According to further aspect of the invention, it is not necessary to increase the rating of the resistor even if the frequency of ripples of the AC voltage is high.

At paragraph [0041]:

[0041] ~~According to the inventions of claims 8, 9, 10, 16, 17, and 18~~ According to yet another aspect of the invention, the flow of unnecessary current to the Zener diode can be suppressed even if the ripple amplitude of the AC voltage is about two times the DC voltage to be outputted.

[0041] According to yet another aspect of the invention, the flow of unnecessary current to the Zener diode can be suppressed even if the ripple amplitude of the AC voltage is about two times the DC voltage to be outputted.

At paragraph [0042]:

[0042] ~~According to the invention of claim 19~~ According to further aspect of the invention, the input AC voltage can effectively be divided and rectified to DC voltage by the first and second capacitors.

[0042] According to further aspect of the invention, the input AC voltage can effectively be divided and rectified to DC voltage by the first and second capacitors.